ABSTRACT

COVID-19 is a pandemic that attacks the respiratory tract triggered by the SARS-CoV-2 corona virus. The World Health Organization (WHO) reports that the personal protective equipment (PPE) used is still very dangerous for health workers in the world during the COVID-19 pandemic. To meet this urgent need, health agencies around the world have begun to utilize Ultraviolet C (UVC) to decontaminate viruses and bacteria. UVC can kill viruses and bacteria that stick and float in the air by direct irradiation. Based on the explanation above, the writer makes a Minimal touch sterilization system using internet-based Ultraviolet-C. This system will be a solution for sterilizing items exposed to open environments with Minimal touch methods through Android-based applications. Several tests were carried out in this study. Tests on the accuracy of the irradiation time obtained a total accuracy of 99.47%. The accuracy of the infrared door closing sensor is 100%. The automatic door timing test got an accuracy value of 99.71%. The accuracy of the light intensity reading is 97.49. QoS testing on throughput, delay, and packet loss are in a good category. The average throughput is 10.53 kbps, the delay is 59.5 ms, and the packet loss is 0%. So it can be concluded that all the accuracy sensor test results are in good condition because they are still above the 95% tolerance limit and the service quality of WiFi on the prototype is in the good category on delay and packet loss.

***Keywords**: COVID-19, UVC, IoT, touchless.*